THE BOSTON
MEDICAL AND SURGICAL JOURNAL.

VOL. XCIII. — THURSDAY, DECEMBER 2, 1875. — NO. 23.

A CASE OF LESION OF THE MEDIAN NERVE WITH REFERENCE TO THE DISTRIBUTION OF THAT NERVE.[1]

BY S. G. WEBBER, M. D., OF BOSTON.

The distribution of the nerves of the hand to the fingers has recently attracted considerable attention. One of the best descriptions of the final distribution of the cutaneous branches of the median, ulnar, and radial nerves has been given by L. Gustave Richelot.[2] He removed the skin and subcutaneous tissues from the hand, and then followed the nerves by dissection from within outwards. He also reports cases of injuries which confirm the results obtained by his dissections.

In the *Archiv für Psychiatrie und Nervenkrankheiten*[3] is an article by M. Bernhardt on the same subject and giving essentially the same results as those above alluded to. In a case reported by him in which the median nerve was injured, he found that on the back of the hand the whole of the last two phalanges of the index and the median finger were affected, and also the radial side of the same phalanges of the ring finger. In this latter respect there is a difference between his case and that of my patient.

Henle[4] describes the distribution of the finger-nerves. He states that on the palmar aspect the ulnar nerve supplies the three medial finger sides, the median nerve the seven lateral. On the dorsal aspect the ulnar supplies one half, the five medial sides; the other half, the five lateral sides, is supplied by the radial nerve. It is in the thumb alone that the dorsal nerves are distributed under the nail; in the other fingers they end at the middle phalanx, and the distal phalanx is supplied by branches from the palmar nerves. As to the most sensitive portion of the fingers, that having the most abundant nerve-supply, the distal phalanx, the dorsal surface of the three medial finger sides is supplied by the ulnar, the five next by the median, the two radial, or thumb, by the radial nerve.

---

[1] Read before the Boston Society of Medical Sciences.

[2] Archives de Physiologie, normale et pathologique, No. 2, 1875, page 177. This paper has been referred to in the Report on Anatomy; see the JOURNAL, page 281, September, 1875.

[3] Vol. v., No. 2, page 555.

[4] Handbuch der systematischen Anatomie des Menschen, iii. 499.

The drawings on page 504 of Henle represent the median as distributed to the dorsum of only the last phalanx of the index and middle fingers and the radial side of the ring finger.

Létiévant has, however, made the most exhaustive study of this subject.[1] He describes the limits of the patch of anæsthesia produced by division of each of the three nerves, and considers the causes which operate to render the borders of the patches more sensitive than the centres. He also studies the motor lesions depending upon such divisions. In regard to the region of the hand over which the sensibility is altered after division of the median, he shows that the limits may vary; sometimes the radial side of the median finger and sometimes the radial side of the ring finger being the extreme limit of the change on the palmar side; on the dorsal aspect sometimes the last phalanx of the thumb is affected. The varying statements made by different authorities are easily explained by variations in the subjects examined.

The following case, which was seen at the room for nervous diseases of the Boston Dispensary, illustrates well the distribution of the median nerve.

James S——, shoemaker, on Saturday had a hard day's work stitching boots. When he awoke on Sunday he found that he had lost the power of moving his right hand, and there was pain in the palm of the hand and in the fingers. The previous night he had slept heavily; he could not tell in what position the hand was when he awoke. On Monday morning he came to the dispensary. The pain was described as of a tingling, pricking nature, such as is felt when the ulnar nerve is hit at the elbow. The parts affected were the radial side of the palm of the hand, the palmar aspect of the thumb, and of the index and median fingers, and the radial side of the ring finger; on the back of the hand, the dorsum of the last two phalanges of the index and median fingers. The same pricking sensation was felt in a line up the centre of the palmar side of the fore-arm as far as the elbow, and ending just by the side of the tendon of the biceps.

As to motor disturbance there was much trembling of the hand, the cause of which, whether merely mental agitation or nervous lesion, was not clearly evident. The motions of the hand in flexion, extension, and rotation were slowly performed, but were still possible. Whether there had been decided improvement in this respect since the occurrence of the lesion was not learned.

Létiévant's explanation of the preservation of motion after injury to the median nerve is interesting. He says, "This paralysis with atrophy does not, however, abolish certain motions which belong properly to the affected muscles. Thus, the pronators are paralyzed, and yet pronation is possible. The wrist is flexed, although the palmaris longus and brevis are paralyzed and atrophied. All the fingers can be flexed in all their phalanges, and yet the flexor sublimis and proprius, and half of the flexor profundus, have lost their power of contracting."

---

[1] Traité des Sections nerveuses. 1873.

This is Létiévant's explanation of these motions. Pronation is performed by the muscles which rotate the shoulder inwards, and by some of the flexors of the fore-arm on the arm, and the weight of the hand assists. Flexion of the wrist is performed by the flexor carpi ulnaris. Flexion of the first phalanges is accomplished by the interossei; of the last two phalanges of the little and the ring finger by the half of the flexor profundus innervated by the ulnar nerve; of the median by the tendinous expansion which the muscular fibres of the ring finger send to it, and by which the flexion of these two fingers is associated. The extensors of the metacarpus produce the flexion of the last two phalanges of the index finger and the last phalanx of the thumb, by drawing on the tendons of the paralyzed flexors.

In the case above described the lesion was not so serious as to have necessarily abolished all action of the muscles supplied by the median, though their action must have been at best very weak.

The muscles were faradized, and the motions of the hand immediately became freer; especially was improvement noticed in the middle and index fingers, but it was most marked in the middle.

The etiology of the lesion is somewhat uncertain. It is possible that during the night the head pressed upon the nerve at the bend of the elbow; yet it is doubtful whether this could be sufficient to give rise to the symptoms, as the nerve is so situated that it is protected from pressure by an object of the shape and size of the head. There was no history of a blow or other pressure upon the course of the nerve. The hard work sewing boots on Saturday would call into use the pronators and flexors. It may be that this overwork of the muscles supplied by the median caused irritation and exhaustion of that nerve. Or it may be that the prolonged use of the pronator radii teres caused an irritation of the nerve at the point where it passes between the two portions of that muscle at the elbow; this would perhaps be the most reasonable explanation, in view of the fact that the pain followed accurately the course of the median nerve to the elbow and there stopped.

A CASE OF INTUSSUSCEPTION: RECOVERY.

BY B. F. SEABURY, M. D., OF ORLEANS, MASS.

September 21, 1875, D. S., aged forty-nine years, generally very healthy, was suddenly attacked, at one o'clock A. M., with severe pain in the left iliac region, extending down the thigh; retraction of left testicle and retching, without vomiting, accompanied the seizure. The pain was deep-seated, and increased on firm pressure ; there was but slight tenderness or fullness of the part, but the pain was persistent and almost intolerable. The symptoms indicated, as I supposed, the presence of a calculus or of some other hard substance in the left ureter; I prescribed opiates in full doses, local hot-baths, etc., till relief should be obtained, and a full dose of castor-oil to be taken next day. I suggested careful inspection of the urine through the next two or three days.

September 22d. The patient was somewhat relieved, but still suffered considerable pain and discomfort in the left side; a slight tumefaction was detected. No effect followed the cathartic ; I prescribed a much larger dose, to be followed by injections of soap and water in full amount, and repeatedly, if necessary.

September 25th. No operation from bowels. The patient suffered little pain, but had slight nausea and occasional vomiting. There was no increase of the tenderness or fullness over the seat of the disease. The pulse was a little accelerated and the tongue slightly coated. From the first there was very little thirst or febrile action. Tenesmus occurred whenever injections were administered. Nothing had been detected in the urine, which was of the usual quantity and appearance. Suspecting the nature of the case, cathartics were now discontinued; the warm bath (for half an hour) and persistent use of injections of soap and water, in as large quantity as could be forced into the bowels, were directed.

October 9th. The condition of the patient continued much the same up to this date. Not a particle of fæcal matter, nor anything indicating a natural passage through the intestines, had been detected. The use of the warm bath twice daily, the injections of warm water in as large quantity as the patient could bear, and of castor-oil with a tablespoonful of oil of turpentine, mixed with a pint of warm water, the inflation of the bowels, the application of tincture of iodine over the seat of pain, liquid diet only and in small quantity (even from the first), all these measures were diligently persisted in, but to no purpose.

On the 5th of October something was discharged which the nurse described as a skinny substance, mixed with quite a large clot of blood and about three inches long; unfortunately it was thrown away, but in answer to my questions the nurse said it looked very like a piece of intestine. This discharge was attended with an unusual amount of pain and tenesmus.

In the evening of October 9th, eighteen days from the time of the attack, I was summoned because the patient had had a dejection of a very unusual kind; on careful examination I found a portion of intestine, evidently a part of the ileum, in a partially decayed condition, and measuring, as I and others judged, not less than fourteen inches in length. This discharge was unaccompanied by any fæcal matter; there was no blood, and no larger quantity of mucus than usual, but the stool was attended with a greater amount of tenesmus than common. The patient immediately expressed himself greatly relieved of the feeling of weight in the bowels, as of "something that ought to come away."

From this time there was no return of that peculiar feeling, and very little pain or tenesmus; small portions of fæces began to appear, but in form "very like shavings or ribbon, appearing as if the mass had been forced through a very small place," as the nurse described it. The fæces retained this form, in some degree, nearly two weeks; but at this date (November 6) they are nearly normal. The bowels have become regular, the dejections are not painful, and do not require much effort. The general health of the patient has rapidly improved, his appetite and digestion are very good, and at this time, forty-six days from the time of attack, he considers himself quite well.

A CASE OF PROLONGED GESTATION.

BY FRANK WELLS, M. D.,

Professor of Obstetrics and Diseases of Women and Children in Cleveland Medical College.

Mrs. M., a lady of great intelligence, had sexual intercourse with her husband on August 27, 1874, two days after the completion of her monthly period. On the following day her husband was called away by business, which detained him from home until the existence of pregnancy had declared itself to his wife by the cessation of the catamenia. She quickened in the early part of January, 1875, and naturally expected to be confined about the 3d of June, for which period she engaged her nurse. Labor did not come on, however, until June 26th, nor was it completed until the following day, exactly three hundred and four days from the date of sexual congress.

The birth, which was a tedious one, necessitating the application of the forceps, was chiefly characterized by the almost entire absence of liquor amnii, only sufficient being discharged to make upon the sheet a stain of the size of a silver dollar. The child, which weighed eight and one half pounds, looked as though it had been in a measure macerated in the amniotic fluid, its skin being loose and wrinkled, and the epidermis peeling off in strips. At this date (November, 1875), the child (a boy) is healthy and vigorous, and weighs eighteen and one half pounds.

The case is remarkable, not only for the long continuance of the gestation, but also for the undoubted evidences of the absorption of some, at least, of the liquor amnii through the cutaneous surface of the fœtus. That this must have been the case is indicated by the fact that as late as the eighth month the child was quite freely movable in the uterine cavity, which shows that at this time there must have been some fluid in which it could float; and still further by the absence, during gestation, of all painful motions of the child, which would undoubtedly have been felt, had the solid contents of the womb come in direct apposition to the uterine walls, without the medium of a protecting fluid.

RECENT PROGRESS IN DERMATOLOGY.

BY JAMES C. WHITE, M. D.

The Relation of the Urine to Diseases of the Skin. — Dr. L. D. Bulkley,[1] of New York, in a paper upon this subject read before the New York Academy of Medicine, gives his conclusions drawn from the examination of the urine in a large number of cases (five hundred and twenty-three) of skin disease, including eczema, acne, psoriasis, urticaria, ichthyosis, and purpura. In eczema he divides the changes in the urine into two classes: those indicating acid dyspepsia with varying specific gravity, or with persistent abnormal acidity and high specific gravity; and those in which the urine is not only acid but deposits uric acid or urates. In acne the urine was usually acid, its average specific gravity 1023¼, and its changes those of dyspepsia, including urates, uric acid, and an increase of phosphates. From these observations he regards the urine as a most important element in the study of dermatology, giving not only indications of great therapeutical value, but also conclusive evidence of the falsity of the doctrine that diseases of the skin are generally of a local origin. He goes so far, even, as to state that not in one of the cases of skin disease examined was the urine found normal.

There can be no question as to the intimacy of the physiological relations between the kidneys and the skin in health, or of infrequent changes in the tissues of the latter when its circulation is surcharged with products which the kidneys have failed to eliminate, or of common disturbances in both in certain constitutional affections. That the skin may exceptionally be examined as a means of diagnosis in renal disease or in certan changes in the urine is a fair conclusion from these facts, but they do not warrant the conclusion that diseases of the skin are capable of producing such disturbances of the excretion of the kidneys as to be recognized by analysis, or that they are but the expression of certain central or constitutional disorders, simultaneously exhibited by tissue changes in the integument and chemical modifications of the urine. The relations of the urine to diseases of the skin must be most carefully studied and all possible chances of error excluded, before any conclusions can be drawn from them affecting the question of the relations of the skin disease to the general economy. Dr. Bulkley's observations do not seem to have been conducted in this manner, if his paper is fairly represented in the report of the proceedings of the society. He analyzes the urine of five hundred patients with skin diseases and discovers certain changes in it. These changes are certainly of a trivial character in the main, and such as occur in the most various and unimportant conditions of the economy. They can in no way, we believe, be regarded as characteristic of the cutaneous affections in which they are recorded by him as occurring. Take his analyses in acne, for instance: observations were made in fifteen cases; in these the urine was found acid, the specific gravity 1023¼ on the average, and "the urinary changes more commonly those of dyspepsia, including urates, uric acid, etc., and the presence of an abnormal amount of phosphates." Are not these results the same as would be gained from the analysis of the urine in a large porportion of cases taken as they occur in any hospital ward, among which there was not a disease of the skin; or such as would be obtained by no means infrequently in the examination of the urine from the same number of apparently healthy people? My own experience in the study of the urine in health and disease tells me that they are, and that I can see in them nothing characteristic of the cutaneous diseases in which they may have been found, or indicative of any "systemic disturbance" which can be considered as intimately connected with them. Dr. Bulkley does not state, moreover, whether in these fifteen cases of acne dyspepsia did not co-exist as the possible cause of the changes in the urine; digestive derangements, according to his views, being closely connected with the etiology of this and other cutaneous affections.

---

[1] The Medical Record, May 1, 1875.

That disturbances in the functions, and pathological changes in the tissues, of the skin may be associated with or even caused directly by disorders of the inner economy cannot *à priori* be denied; but we must not apply to the solution of this question methods of observation or reasoning which would not be allowable in investigating the natural history of the diseases of other parts of the human frame. The skin is a very complex structure, and has the same right to be independently diseased as any other organ or tissues of the body. That it is more or less intimately connected with other systems of the economy there can be no more doubt than that the same blood flows through them and it in common; but that its diseases are in any way necessarily more intimately dependent upon this or that mysterious systemic disturbance, or still more shadowy changes in the blood, or causes of a "constitutional" origin, than those of other organs, — the lungs, liver, or kidneys, for instance, — there are no substantial grounds for believing, except such as are the result of rigorous observation alone. In no branch of pathology has there been such unwarranted substitution of prejudice and empty theorizing for such investigation as in dermatology. Independent and simple observation has been made almost an impossibility in some nations and schools, owing to the atmosphere or haze of imaginary diatheses which has surrounded it. It is well, then, to call to our aid in its study the exact science of chemistry, if its teachings are not misinterpreted; but we fear that little will be learned, through its application to the urine, of the causes or therapeutics of skin diseases.

Since the above was written, Dr. Bulkley's paper has appeared in full in the October number of his *Archives of Dermatology.* It is a long one, and contains, apparently, mention of everything hitherto written upon the subject, in addition to his own investigations and conclusions, which are fairly enough stated in the report of the society. It fails, however, to show that the urinary changes in question are the result of the cutaneous changes they accompany. The paper brings together much interesting material, and illustrates the writer's indefatigable industry.

Molluscum Contagiosum. — Dr. Cäser Boeck, of Christiania, communicates[1] the results of his investigation of the anatomy of this very peculiar affection. Ordinarily regarded as a disease of the sebaceous glands, it is known that Virchow considered its starting-point to be the hair follicle, while Retzius maintained that the epidermis is the seat of the disease. Peculiar bodies have long been recognized as a constant and characteristic microscopic feature of the growth, which are supposed to be the contagious element of the affection, and which have been regarded in their histological relations most variously by different observers. If some of the matter from the gland-like structure of the growth be squeezed out through the opening in its centre, these bodies will be found in great abundance, more or less round or oval in shape, sharply defined, transparent, and of a fatty lustre. Boeck concludes, as the result of his study of them, that they are not foreign bodies, not the products of an endogenous process, but only cells of the rete which have undergone a peculiar metamorphosis of protoplasm, the nature of which he does not comprehend. That they must be the bearers of contagion seems to be accepted in want of any other plausible theory to explain the facts of transference of the affection from child to nurse, from one to several playmates, from the genitals of one sex to those of the other in connection, and by direct experiment. The cells, if they be the guilty bodies, must have the power of multiplying themselves by subdivision upon another host, or of inducing by contact healthy cells to take on the same pathological process. It is Boeck's opinion, too, that molluscum is not an affection of the sebaceous glands, but of the rete mucosum.

---

[1] Vierteljahresschrift für Dermatologie und Syphilis, 11 Jahrg., erstes Heft.

The Inoculation of Varicella. — Professor Steiner[1] reports his experience in ten cases in which he has practiced inoculation of the clear watery fluid taken from freshly developed varicella vesicles. Eight of the ten succeeded, that is, they were followed by the development of varicella, and never of variola. Of these, five had been vaccinated, and three not. In all, the duration of what he calls the stage of inoculation lasted eight days. Four times the eruption appeared without any prodromata. The highest temperature, as a rule, coincided with the eruption; the defervescence was rapid and complete. The course observed after the inoculation was ordinarily the following: on the third day nothing was to be seen at the point of insertion; on the fourth a gradually increasing febrile movement began, with distinct evening exacerbations and morning remissions. There was decided reddening of the mucous membrane of the mouth and throat before the appearance of the eruption. This followed on the eighth day, and the disease ran its ordinary course.

Etiology of Infantile Eczema.[2] — Dr. R. W. Taylor, of New York city, discusses in this paper, which has also been published in a separate form, the question of the relations of eczema to the general economy. He first considers the effect which certain "diatheses," the rheumatic and scrofulous, may have in predisposing to its development in the infant. The manifestations of the former are so tardy in their evolution that, as he believes, it cannot affect the skin in infancy; while with regard to the latter no more intimate connection can be shown than in the greater tendency to inflammation it impresses upon the integument in common with all the tissues of the body. In cases of this origin the disease is extensively distributed, deeply seated, of purulent form, obstinate, and more than usually disposed to relapse. With regard to the question of transmissibility from parents to offspring of a tendency to eczema, he is of the opinion that this can be accepted without believing in such theories as the handing-down of blood-conditions or diatheses, certain parts of the organism being perpetuated in an abnormal state, as shown in inherited xeroderma, for example. Local debility, therefore, and not hereditary morbid dyscrasia, is to be regarded as the explanation of this class of cases, an inherited tendency to local disease awaiting any sufficient exciting cause for its manifestation.

Another question considered by Dr. Taylor is the relation between the disease and other cutaneous affections in children. Eczema, as a sequela of vaccination, of the exanthemata, etc., or in a relapsing form, he would explain on the theory that inflammatory processes of the skin, whether simple or specific, induce a tendency to a similar process in the future by ingrafting a peculiar morbid condition upon the cells, blood-vessels, and nerves of the part; that eczema, likewise, more especially of severe form, "localized to one spot, ingrafts a tissue tendency therein to a subsequent similar attack; and also that this affection of one part of the tegumentary membrane predisposes to a greater or less degree the whole to the same morbid process, which is manifested either by its direct extension from the original focus or by its beginning spontaneously at some point more or less remote from its origin." Even with this tendency, he is of the opinion that in rare instances only does the affection arise spontaneously, and that in the vast majority of cases in infants it starts from local sources of irritation.

---

[1] The Medical Record, October 23, 1875, from Rundschau, August, 1875.

[2] American Practitioner, June, 1875.

Anal Eczema. — Vérité, in *La France Médicale*,[1] gives an excellent account of this most common and troublesome affection. Vesicles are rarely observed on account of their early absorption, he thinks, and the moisture of the parts he attributes to glandular secretion, not to eczematous discharge. His description of the intensity of the accompanying pruritus and the consequent changes is very characteristic: patients press aside the nates to get at the mucous surface, and not only rub and scratch it, but introduce two or three fingers into the rectum for several minutes, thus producing a titillation which is followed by a slight serous discharge, succeeded by relief and sleep. This habit, difficult of renunciation, is dangerous in proportion as it is accompanied by pollution. The consequent changes are analogous to those which are characteristic of passive pederasty; an infundibulum is formed, fissures and crests ensue, and the semi-spherical concave is transformed into a plane which extends from one ischiatic projection to another. Thickening of the tissues and excessive pigmentation are often observed. Alkalies internally and the application of ferric sulphate are advised.

The Management of Eczema.[2] — Dr. L. Duncan Bulkley republishes in pamphlet form under this title an essay read before the American Medical Association in 1874. For presenting it in this more accessible form to the profession he could have offered no better motive than the following: "If he shall have assisted any in their attempts at mastering this protean malady, and shall have aided in removing its treatment from the rut of Fowler's solution and zinc ointment, . . . the writer will be amply repaid for his labor." He begins with a brief account of the pathological anatomy of eczema, and defines it to be a catarrhal dermatitis in its early stages, but would apparently restrict the definition to cases arising from unknown causes, as he states that the eruptions which are produced by most external agents, rhus, arnica, soaps, etc., are not eczema, although dermatitis. That these agents, and others, are capable of giving rise to graver forms of inflammation than the usual tissue changes of this disease, there can be no doubt, but that they often do so is beyond our observation. The appearances produced by the rhus poison, for instance, in surface manifestations, subjective symptoms, and course, are in a great majority of cases wholly those of acute eczema, and, although generally stamped with certain characteristic though trivial peculiarities, present ordinarily no greater deviations from the average type than occur in a series of idiopathic cases. Their cause is often overlooked for this reason, and cases not unfrequently present themselves where even the most experienced observers are unable to determine whether the eczema be of this extraneous origin or not. Farther on the author admits the influence of local agents in the production of the disease, for he refers to the eczema caused by pediculi, the itch insect, heat, water, sugar, lime, and other chemical agents. He is strongly inclined, however, to adopt the diathetic view of causation, inasmuch as these eczemas of local origin are inclined to run an acute course without subsequent chronic infiltration of the skin, proving, as he thinks, a failure to find the system in a condition to sustain the cutaneous manifestations, when their direct cause is removed. This condition he regards as some unknown blood change, deranged cell action, congenital defect, perverted innervation, or the like, with special emphasis on the first named, as further manifested in the paper on the urinary changes in this affection, above noticed. What are these sets of words but confessions that the causes of idiopathic eczema are almost wholly unknown, not yet within the range of demonstrative reasoning, in which respect it is like most diseases of the skin, like most diseases in general?

---

[1] Chicago Medical Journal and Examiner, September, 1875.

[2] The Management of Eczema. New York: G. P. Putnam's Sons. 1875.

With regard to the management of eczema Dr. Bulkley's views are largely influenced by these theories concerning its etiology. Starting with the assumed doctrine that the fact of local disease necessarily proves constitutional disease, he considers that it is absolutely necessary to employ internal treatment addressed to the system at large, and that the effects of external remedies are but local and in a great measure temporary. The medicines which he finds to be requisite are treated of under these heads: cathartics, diuretics, alkalies, tonics, and sedatives. The first he uses sparingly at the beginning, but cautions against their abuse. Diuretics, he thinks, are "positively demanded in a goodly proportion of cases," because the cutaneous capillaries are irritated by the circulation of effete products through them. Under this head he includes alkalies as of the utmost importance, as he considers eczema to be largely the result of over-acidity, as shown by the acidity of the urine and by the presence of acid dyspepsia, the "almost universal vomiting of infants with eczema" (?) being, he thinks, an effort of nature to get rid of the acid. Under tonics he gives the first place to cod-liver oil, its effect in the proper cases being "magical." Of arsenic he says that he rarely gives it, although it may assist at times and give permanency to the cure. Among sedatives he strongly recommends chloral for the relief of nocturnal itching, and includes with them tar and carbolic acid given internally.

But Dr. Bulkley does not neglect local treatment, although he makes it subordinate. He gives the most particular directions as to the different classes of remedies to be used in the acute and the chronic stages of the disease. They are, however, mostly those of the German school, modified, as he thinks to be necessary, for the more delicate American skins, and therefore need no special comments here. In his Analysis of One Thousand Cases of Skin Disease [1] occurring in dispensary practice, he calls attention to the satisfactory results he has more lately obtained by the use of tannin ointment (one drachm to the ounce), and subnitrate of bismuth (half a drachm to the ounce) in ointment. Domestic soft soap he also advises in place of sapo viridis. Its unequal strength, however, makes its action very uncertain.

That there are often faults of the general economy or disorders of special organs and functions in patients with eczema, no one would deny, or the importance of removing them so far as possible by proper means. That they are generally or necessarily present, as shown by legitimate evidence, or that, when present, they can be demonstrated in most cases to be the cause of the disease, are questions upon which very different opinions from those of Dr. Bulkley are held by the best of observers, the correctness of which, we think, may be most clearly shown by the practical test of applying their principles to practice. That our author treats eczema most successfully by his skilled use of local remedies and universal internal medication, we doubt not; so do others who believe and practice differently.

Étude sur la Dermatite exfoliatrice généralisée.[2] — This article is founded upon the observation of three recent cases in St. Louis Hospital which, the writer thinks, find no place in the lists of ordinary affections of the skin. According to his conclusions, epidermal exfoliation shows itself as an important element in many cutaneous affections, but it is rare, except in scarlet fever, to see it develop simultaneously over the whole surface of the body and in the form of large scales. The universal distribution of the exfoliation, together with the enormous size of the scales, is sufficient to characterize the disease as a special affection under the name of dermatite exfoliatrice, and to distinguish it readily from such squamous affections as psoriasis and pityriasis. Several cases described by Wilson, the cases called herpétide exfoliatrice by Bazin, and others described under the title pemphigus foliaceus, pityriasis rubra, etc., seem to him to deserve the same name. He recognizes two varieties of the disease. The first is characterized by a very abundant and persistent exfoliation with a rapid renewal of the epidermis, and embraces several varieties, according as the cutaneous affection is accompanied, or not, by grave general symptoms, and according as it is developed primarily and persists as such throughout the whole course of the eruption, or in the course of some other affection of which it is in some way a modification. In the second the exfoliation is of less importance, and perhaps should be regarded as the last stage of an erythematous affection. In order to give an idea of its rapid course and mild character, it might be called dermatite exfoliatrice pseudo-exanthématique. He thinks that it would be premature, with the few facts in our possession, to pronounce upon the nature of the affection, but that it is not always the same.

---

[1] American Practitioner, May, 1875.

[2] Émile Percheron. Paris. 1875.

(To be concluded.)

HAMILTON ON FRACTURES AND DISLOCATIONS.[1]

THE excellent and comprehensive treatise of Dr. Hamilton is too well known to require extended comment. In examining it we are impressed with a criticism which applies to most last editions of medical works. A good deal is added and little taken away. It is often said of a long sermon that it would be improved by boiling down, but this process occupies time, which we can hardly expect from a large practitioner with extended occupations. The evil resulting from a want of this kind of revision is very obvious. Each edition becomes more and more a collection of desultory facts at each issue less digested. In the present work examine, for example, the chapter on treatment of the fractures of the thigh. It contains, as we infer, everything that has been said or done by every practitioner, at least in the United States, for the last forty or fifty years, with wood-cuts of the apparatus employed by them. As a store-house of history it has its value; but to a student or practitioner who desires to know what is the best treatment for a fractured thigh its value is less apparent. Every surgical practitioner has a hobby by means of which he produces results as good as those of any other practitioner or as are known to science. This means that certain principles are common to all methods and certain features essential to all apparatus. We desire to see these common and essential elements of treatment and apparatus emphasized and made so accessible that the practitioner who runs may also read. In a word, the criticism we have to make upon this excellent work of Dr. Hamilton is that it lacks that perspective which brings important facts into the foreground. It is a Chinese picture of surgical practice, in which every object obtrudes its claims with equal force upon the observer. Such a work leaves for the reader that business of selection and appreciation which legitimately belongs to the writer.

One more example will suffice. In this community it is believed that the impacted fracture of the neck of the thigh-bone is, to say the least, one of the most common of those occurring in adults about the hip.[1] It is a source of constant error in diagnosis, and sometimes of litigation. It is liable to be overlooked as a sprain, or to remain in doubt while the patient is lame; and yet its signs are so far pathognomonic that it is hardly too much to say that this most common fracture need never occasion doubt. We look in vain in Dr. Hamilton's book for any such identification as this of the impacted fracture of the neck of the thigh-bone. In reading his chapters no one would suspect its frequency, its importance, or the certainty with which it can be diagnosticated.

---

[1] *A Practical Treatise on Fractures and Dislocations.* By FRANK HASTINGS HAMILTON, A. M., M. D., LL. D. Fifth Edition. Philadelphia: Henry C. Lea. 1875.

We observe a few omissions. In so exhaustive a work we should expect some notice of the V or W fractures of the tibia, so often accompanied by serious injury to the ankle-joint, described so minutely in past years by several French authors as well as in the pages of the JOURNAL.[2] Nor do we see any account of Suersen's apparatus for fractured jaw, which has been employed with satisfactory results by surgeons in this city. But where there is so much that is good we may well refrain from criticism. We commend the work to our readers as the best treatise extant in connection with this subject, and we trust that its distinguished author may find time in future editions to increase its value by condensing its details.

DALTON'S PHYSIOLOGY.[3]

THE statement of the author in the preface to this edition that "the additions and alterations in the text . . . have resulted . . . in an increase of fully fifty per cent. in the matter of the work," gives a very inadequate idea of the labor involved in the preparation of the volume. The character of the book has been radically changed, large portions of it having been entirely rewritten. The new matter has been added with great judgment and discrimination, and the student now finds in this work clear and concise statements of the present condition of our knowledge in nearly all the principal departments of physiology. The most important additions are in those chapters which relate to the nervous system, and particularly to the nerve-centres. A very good general account is here given of Hitzig's observations on the localization of motor centres in the cortex cerebri and of the confirmation of his results by a committee of which the author was a member. As chapters in which the improvement over former editions is most marked may be mentioned those on respiration and on animal heat. In the latter chapter the recent observations of Senator on heat-production are appropriately recorded. The portion of the work devoted to the physiology of reproduction has been enriched by a full and well-illustrated account of the formation of the blastodermic layers,

[1] Bigelow on the Hip. 1869.

[2] Nouveau Dictionnaire de Médecine et de Chirurgie, xix. 526. Richard, page 67. Folin and Nélaton. R. M. Hodges, M. D., Boston Medical and Surgical Journal, new series, vi. 102.

[3] *A Treatise on Human Physiology.* By JOHN C. DALTON, M. D. Sixth Edition. Philadelphia: Henry C. Lea. 1875.

as well as by some additional information on the subject of infusorial animalcules and their relation to the question of spontaneous generation.

In comparing this edition with that preceding it, one is struck by the entire omission of the chapter on the spleen; nor is this omission made good by any reference to that organ in other portions of the work. It is true that we are lamentably deficient in positive knowledge of this viscus, but this hardly seems a sufficient reason for ignoring the subject altogether. The physiology of the vaso-motor nerves is also rather too hastily disposed of. This subject has of late years been investigated so extensively, and with such good results, that it seems to deserve rather more notice than can be bestowed in the three pages which the author devotes to it.

In spite of these defects it may be safely said that the work will take very high rank as a text-book of physiology. In fact, it would be difficult to point out any book in the English language so well adapted to meet the wants of medical students. H. P. B.

WOOD'S THERAPEUTICS.[1]

The first edition of this work was so recently reviewed in the JOURNAL that an extensive notice would now be superfluous. We are pleased to find that many of the errors in the first edition are corrected in the second edition; and also that Dr. Wood has taken great pains to carefully revise those of his conclusions which are not supported by more recent contributions to the literature of therapeutics. In view of its clinical importance we would call the attention of our readers to what the author says of the antipyretic action of quinia:[2] "The drift of our present clinical evidence seems to indicate that quinia exerts in febrile disease a decided antipyretic action, which is especially manifested during those stages of disease in which the natural tendency is towards a lowering of temperature. . . . As an antipyretic the drug should be used whenever there is serious elevation of temperature, except it be in cases of simple inflammation of the brain or its membranes." This conclusion is somewhat different from that expressed in the first edition.

Among the additions to the list of drugs caffein, the alkaloid of coffee, may be noted; and very properly, it would seem, Dr. Wood has included under this head also a description of thein, the alkaloid of tea. The medical world is probably not yet willing to allow that either caffein or thein will produce the same effects as the hot infusion of coffee or tea, and perhaps if Dr. Wood had confined his description to the hot infusions of tea and other vegetable "food substitutes," he would have been induced to place these substances under the head of stimulants rather than antispasmodics. However, the description of the therapeutical effects and uses of caffein are in accord with the light of modern investigations. We may notice the following words, which will hardly tend to add confidence with regard to the use of this remedial agent: "To predict in any case what its influence will be, in the present state of our clinical knowledge, is impossible."

---

[1] *Therapeutics, Materia Medica, and Toxicology.* By H. C. WOOD, M. D., Professor of Botany, etc., in the University of Pennsylvania. Revised Edition. Philadelphia: J. B. Lippincott & Co. 1876.

[2] Page 71.

It may also be noticed that in this second edition of his work Dr. Wood has rearranged his classification. He has included in Part I. what in his former edition was placed under the head of Part II. In order, however, to make his classification more systematic, he divides the materia medica into —

"1. Those substances which act on the solids and fluids of the body.

"2. Substances which act externally to the body."

He includes in Part II. "remedies which are not drugs." These latter he describes under the head of forces, in which he includes caloric, cold, and electricity.

Dr. Wood has evidently exercised a good deal of discretion and bestowed much labor in revising the first edition, and nowhere else can we find such an accumulation of original work of investigators in the field of physiological research as in this book.

We can hardly forbear to remark that a careful perusal would seem to show that physiological investigation has certainly achieved more exact progress than clinical experience. It is rather a cause for regret that we have not more careful observers of the results of clinical experience with drugs, so that the same tests might be applied at the bedside as are now done in the physiological laboratory. We might then feel assured that the practical utility of drugs in disease had attained a rapid progress. As it is now, the medical student commences his combat against disease with rather a confused idea of the value of medicines. Indeed, he can better describe the pathology than the medicinal treatment of disease.

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT.

F. B. GREENOUGH, M. D., SECRETARY.

AUGUST 23, 1875. *Diphtheria.* — DR. C. P. PUTNAM spoke of seven cases of diphtheria which had been under his care, in a tenement house in the rear of Cambridge Street. Of these, four were fatal. In three there was an eruption resembling that of scarlatina, but differing from it in not making its appearance in patches, as is usual in scarlatina at the outset; it consisted of small dots and it spread downward over the body like that of the eruption of scarlatina. Three of the children, who had had scarlatina last winter, did not have this eruption. One of the cases, a girl six years old, had when first seen little white spots on the tonsils, and next day diphtheritic patches; on the second day the eruption appeared, and lasted four days. The deposit on the tonsils increased somewhat, and there was some redness of the fauces. At this time some enlargement of the cervical glands was noticed on the side of the neck. The patient was doing well otherwise, apparently, and on the tenth day she was sitting up, dressed and sewing. On the eleventh day, during the morning she seemed rather heavy, but made no special complaint. Her appetite was poor and her feet were somewhat œdematous. In the afternoon she became restless, moving from one seat to another. A little before five P. M., she exclaimed that she wanted to see the doctor. At this time no dyspnœa or change of color was noticed, but the patient seemed more restless. Suddenly she called out, "For God's sake, bring the doctor," and died. During the time that the eruption was present the urine was examined once, and found to be slightly albuminous. Dr. Putnam supposed that death was due to d phtheria and not to scarlatina, and thought that the case was interesting, from the fact of sudden death's taking place without any dyspnœa. No record of the temperature was taken in this case, but in that of a younger child (three years old) in the same family, who also had the eruption, and who also died suddenly, it had been 102.5° at the onset. In this case the eruption preceded the diphtheritic throat. Dr. Putnam asked if other gentlemen had seen cases of diphtheria where the death was sudden without any dyspnœa.

Dr. Abbot said that he thought such cases were not so very rare. He mentioned one, in which a gentleman who was thought to be convalescent was up and about the house. He lay down on a sofa and died without any premonitory symptoms. A child six years old, in the same house, with a diphtheritic deposit in the throat, died suddenly while sitting up and dressed.

Dr. Jackson expressed a doubt whether the eruption in these cases was really that of scarlatina.

Dr. Fitz said that Dr. Robinson, of New York, had attempted to prove that sudden death in diphtheria was due to the formation of a clot in the heart, but that he was not supported by his autopsies in this theory.

Dr. Porter spoke of the case of a young lady supposed to be convalescent from diphtheria, who died instantaneously while going up-stairs on her return from a drive. He had performed tracheotomy twice in cases of diphtheria. In one the mucous membrane of the trachea was so inflamed and œdematous that only the inner tube of the smallest tracheotomy-tube could be introduced. In both cases the patients died, although the dyspnœa was relieved. In answer to a question whether the operation was ever successful he said that cases of recovery after tracheotomy were reported. We know, moreover, that children have recovered without the operation, and it is reasonable to suppose that at least as many would get well after it.

Dr. Putnam asked, with reference to Dr. Jackson's remark concerning the nature of the eruption, if any member had seen the so called eruption of diphtheria, a uniform blush preceding the deposit. In this case, the eruption resembled that of scarlatina, although there were no patches, and it spread over the body as that of scarlatina does. The papillæ of the tongue were enlarged, but the tonsils were not to any great extent. The locality in which these seven cases occurred was a crowded tenement house, the cellar of which was damp and musty, and was used to store fruit which was used in a bakery on the premises. The water-closets seemed to be in good order. The most "asthenic" cases occurred on the ground floor, and these, when moved to upper rooms, improved.

Dr. Putnam showed several specimens of diphtheritic membrane in various solutions.

There were two specimens of the natural membrane unaltered; one of some of the membrane in lime-water, which was partially decomposed, the fluid looking opalescent; one in strong lactic acid, which was nearly dissolved, the fluid being perfectly clear; and lastly, one in an aqueous solution of salicylic acid, which seemed to have, as it were, tanned the specimen.

Syphilitic Placenta. — **Dr. Fitz** reported the case and showed the placenta, which came from a patient of Dr. Foster. The fœtus was a macerated one of about five months. The mother had had frequent abortions, but no syphilitic symptoms in the intervals; it was probable that the husband had been infected.

The changes in the placenta consisted of a thickening and opacity of its uterine surface, which presented yellowish patches alternating with others of a grayish-white color. Beneath these were nodular masses, corresponding in color and of a relatively homogeneous appearance; the yellow nodules were more dense than the gray ones. The membranes were also thickened, opaque in spots, and of a yellowish color. The changes in the placenta were due to a thickening and increased formation of the placental villi, with cell formations in them, and an eventual fatty degeneration.

Fränkel, who specially described these changes in the placenta as resulting from syphilis, considered them as indicating that the ovum had been directly infected by the father, when there was no evidence of disease on the part of the mother. That these changes in the placenta are due to syphilis is confirmed by the condition of the bones of the fœtus, which present the changes described by Wegner. The fact of there being no sharp dividing line between the bone and cartilage is of great value as a diagnostic sign.

Dr. Jackson asked if these changes had been noticed in other placentæ.

Dr. Fitz said that somewhat similar appearances resulting from hæmorrhage, fatty degeneration, fibrous thickenings, etc., had been found in placentæ, but that it was only recently that the connection between this special form of change and syphilis had been appreciated.

Dr. Ellis said that he had often in the past seen such placentæ, but that he had not been aware of their significance.

Dr. Jackson asked if it were a well-established fact that syphilis was a cause of repeated abortions.

Dr. Fitz thought that it was.

Dr. Williams said that it was certainly very common, where a child was seen with hereditary syphilis, to hear a history of repeated previous abortions on the part of the mother.

Dr. Greenough said that of the great number of married women who came under his care at the Boston Dispensary, and who were suffering from syphilis, a very large majority gave a history of repeated uncompleted pregnancies.

October 11. *Foreign Body in the Eye.* — **Dr. Williams** reported the case. The patient, a boy, was first seen in August, 1874, with a history of a piece of a percussion cap having been blown into the eye in June. Examination showed a scar of the cornea, and a wound of the iris and lens; and Dr. Williams cautioned the parents about the necessity of getting advice at once, should any inflammatory symptoms arise. Last November the eye did become inflamed, and continued so for about three months. Last month the inflammation recurred. When again seen by Dr. Williams, October 5, 1875, the eye was somewhat atrophied and soft, was without any perception of light, and was considerably injected and sensitive. Under the use of atropia, the pupil dilated very slightly at one part but was elsewhere adherent to the capsule of the lens. No further light was obtained by an examination, and the fragment of copper was nowhere to be seen. Under the circumstances, considering the danger of sympathetic trouble in the other eye, extirpation was considered imperative. On seeing the patient the next day, however, a piece of copper, nearly a quarter of a whole cap, was discovered in the anterior chamber, which must have found its way through the pupil after dilatation. The metal was removed, and the patient has done well. Dr. Williams thought it a remarkable fact that such a large foreign substance could have remained for such a length of time in the eye without causing more trouble.

DR. HAY said that such cases put the surgeon in a difficult position. If the eye is not removed there is always danger of trouble and even loss of the opposite from sympathetic inflammation; but on the other hand, it is not certain that any trouble will follow. Patients naturally look upon the removing of an eye as a serious thing, and are unwilling to submit to the operation unless they are told that it is absolutely necessary, which perhaps the surgeon is not justified in saying.

DR. JACKSON asked what was supposed to be the cause of the marked sympathy between the eyes in cases of this sort.

DR. WILLIAMS said that it was usually attributed to irritation of the ciliary nerves of the one eye extending to and affecting the same nerves of the other eye; whatever the cause might be, the fact was undoubted, more especially in cases in which a foreign body remained in the ciliary region, or in which that region was involved in the scar of a wound.

Large Tumor below the Knee; Myxo-Lipoma. — DR. H. J. BIGELOW exhibited a recent specimen of this disease, and reported the case. The patient was a sufficiently healthy-looking woman, thirty-one years of age, and the mother of eleven children. Two years before her entrance into the Massachusetts General Hospital the tumor appeared in the calf of the leg, movable and rather superficial. After a year it was of the size of a cocoa-nut, and when examined equaled that of a very large foot-ball, the circumference being thirty-one inches. In extent it reached from the middle of the calf of the leg to just above the popliteal space; the posterior and outer portions of the leg being the chief seat of the disease, so that it was thought that it might arise from the fibula. Over the tibia it did not extend, and this bone was evidently unaffected. The mass was nodulated, with large veins creeping over the surface, and more or less redness; and toward the outer portion was a defined ulcer, four inches in diameter, from which there projected a large, fungous, sloughy mass, that had been the source of a severe hæmorrhage. Near the large ulcer were two others, small and superficial. Pain in the tumor was but moderate from the first, and for the last three months the general health had been impaired.

Dr. Bigelow amputated the thigh just above the tumor, and, on subsequent examination, found the following appearances: The bones proved not to be involved. The tumor consisted chiefly of fat, with masses interspersed of pure myxomatous structure. The fat was whiter than ordinary, less lobulated, and, when cold, did not resemble an ordinary fatty section; but it greased paper, and, under the microscope, showed well-marked fat cells everywhere. The myxomatous tissue looked like chilled isinglass, being translucent, and in some places jelly-like and slimy when drawn out. Its color was reddish-gray. The masses varied in size from that of a chestnut to that of an apple, were of irregular form, and as distinctly and abruptly separate from the surrounding fat as the bits of fat in the section of the breast of a larded partridge. This tissue presented a fibroid structure in some places, and in others, minute parallel, wavy lines. Under the microscope it showed well-marked stellate, attenuated cells.

Dr. Bigelow remarked that this somewhat rare tumor of the connective tissue was an unusually fine specimen of what Virchow has described as a myxo-lipoma, presenting well-marked fat, in which masses of colloid tissue were distributed. This last is regarded as an elementary form of fat, and is seen in the umbilical cord, and also in the degenerating fat and connective tissue of old people. The whole is an illustration of the fact that certain tumors represent the embryonic condition of natural tissues; the present growth being connective tissue, at once exaggerated in volume and embryonic in structure. Müller has stated that his collonema, which much resembles the present specimen, is in some instances a benign growth. Dr. Bigelow said that it was difficult to believe that an immense tumor that had formed within the space of two years, and had pervaded all of the soft tissues, should be of that character, but in amputating the limb he gave the patient the benefit of the doubt.

Deficiency of the Extremities. — **Dr. Jackson** reported the case of a negro whom he had seen lately on exhibition. The right upper extremity was scarcely to be felt, and was probably not over an inch in length. The left upper limb terminated bluntly about the middle of the arm, as in a case of amputation. Each of the lower extremities consisted of a leg and a foot, of good length and dimensions; and although the hips were completely exposed, nothing like a femur could be felt upon either side. The motions of the extremities, however, were free upon the pelvis. The left was rather less developed than the right, and in a state of adduction. The left foot had four toes; the right had five, and was permanently extended upon the leg; and with them the man could fill his pipe, light it with a friction match, and put it into his mouth, load and fire a pistol, and perform some experiments of great delicacy. Except the conditions described, the man's body was well formed. He was thirty-one years of age. His countenance was intelligent, and he looked healthy. His keeper, however, said that though he ate well, his bowels were very torpid and his evacuations did not occur oftener than once in ten or fourteen days. He is married, is in every way well developed sexually, and has two children. One of these is nine years of age, and well formed; the other is two years younger, and is said to resemble his father. There have been no other malformations in his family, so far as the man is aware.

HOSPITAL CONSTRUCTION AND ORGANIZATION.

OUR readers are familiar with the fact that the late Johns Hopkins, a rich citizen of Baltimore, bequeathed a munificent sum, amounting to more than three millions of dollars, for the building and support of a general hospital to be called by his name and to be placed in the favored city of his residence. The trustees of this bequest, in conformity with the expressed wish of Mr. Hopkins, initiated the execution of their trust by seeking "the advice and assistance of those who have achieved the greatest success in the construction and management of hospitals." To this end, five well-known physicians, representing different sections of the country, were requested to give to the board their counsel. One of the fruits of this preliminary measure is before us in the form of an exceedingly attractive book [1] containing the contributions which the request elicited. Here are gathered the five essays, comprising in their entirety a remarkable amount of experience and scientific attainment. It is a tournament of experts. Boston, New York, Philadelphia, Washington, and New Orleans are well represented, and the combined work may be considered as the expression of the American view upon a subject in which every physician has an interest. The profession is under great obligations to the trustees for this valuable addition to the literature of hospital hygiene; if the generous purposes of the Baltimore merchant should go no further toward fulfillment, this collection of essays was happily conceived as in itself a tangible and lasting memorial of his wish to relieve human suffering.

Although the executors in their circular letter expressed the belief that "there must be some principles of hospital hygiene and of hospital treatment fixed and immutable in their character," they could hardly expect entire unanimity on the part of their advisers in the expression and practical application of those principles. The subject of hospital construction has been revised so thoroughly in recent times, traditional notions were so fundamentally disturbed by the army experiences of the last fifteen years, that the architecture and administration of civil hospitals are still open matters of discussion. But however widely opinions may vary concerning the causes and prevention of "hospitalism," upon one point there is harmony; it is agreed that the first and most peremptory requirement of hospitals is that "they shall do the sick no harm;" and it is gratifying to see this precept emphasized throughout this book.

Upon the interesting question of the relative merits of one-storied pavilions and of superimposed wards, the writers have decided but somewhat different notions; the weight of preference, however, is for the single-ward buildings. There is entire unanimity upon the superiority of permanent buildings to temporary barracks; all the advantages claimed for the latter are to be secured by the proper construction and administration of the former, while for special emergencies tents offer a ready expedient. In the matters of heating and ventilation, there is essential harmony of views; indirect radiation from steam-coils, supplemented by open fires, is the method generally recommended, while the means for supplying pure air and for exhausting foul air show no noteworthy differences. Concerning the supply of light, the amount of air space, and the use of the pavilion-basements for ventilation only, there is substantial agreement. The arrangement of the administration buildings appears to have vexed the spirits and taxed the ingenuity of all the writers; the general kitchen seems the object of special opprobrium, for we find it now at the top of the centre building, now at one side of the grounds in a detached house, now in the basement under the main structure, and now isolated in the centre of the system.

---

[1] *Hospital Plans: Five Essays relating to the Construction, Organization, and Management of Hospitals, contributed by the Authors for the Use of the Johns Hopkins Hospital of Baltimore.* New York: William Wood & Co. 1875.

We have space for only the briefest mention of the individual contributions, each one of which merits full examination and analysis.

Dr. J. S. Billings, assistant surgeon U. S. A., has been known and quoted as a special advocate of temporary barrack hospitals; it is therefore somewhat surprising to find him now advising that all the pavilions should be permanent and that most of them should be of two stories. But he seeks to avoid the evils supposed to attend such an arrangement, by rigidly classifying the patients (separating the febrile from the non-febrile cases), and by so placing the means of communication from the lower ward to the upper that each shall be practically isolated. Fire-places find no favor with Dr. Billings; "they waste fuel, increase labor, cause noise and dust, and are somewhat dangerous." Impermeability of walls is not to be aimed at, for if secured it would prevent transpiration; "it is like varnishing a man's skin to keep his underclothing from being soiled." The shape and arrangement of the wards proposed are quite similar to those of the wards in the Boston City Hospital. Dr. Billings has wrought into his essay many matters relating to hospital hygiene, his acknowledged ability and experience being well illustrated here.

The essay of Dr. Norton Folsom is in many respects in strong contrast with the others; it avoids the elaborate discussion of principles and theories, and aims straight at the matter in hand, presenting exactly what we believe the trustees wanted — clearly defined, detailed, sensible recommendations to guide them in the actual execution of their important work. We have here, not the contribution of an amateur or theorist, but the production of one who, as he says, "feels especially sure of his ground from experience." It does not detract from the value of his suggestions that many of them are simply modifications of plans and methods already in successful operation under his own supervision at the Massachusetts General Hospital; indeed, that fact rather adds to their value, in that they have been tried and have not been found wanting. We are most favorably impressed with the directness, the simplicity, and the thoroughness which characterize all the descriptions, and at the same time with the completeness with which they appear to satisfy the requirements of well-established laws of hygiene.

Dr. Folsom's unreserved preference is for single-story, permanent pavilions. The room for patients in the common wards is square in shape, with the apparatus for heating and ventilation (open fire-places and steam-coils) in the centre. The administration of the ward is entirely at one end of the building, the opposite end being devoted to a sun-room. The isolating wards are well arranged for their purpose; their plan is essentially that of the new Bigelow ward at the Massachusetts General Hospital. The kitchen, laundry, boilers, operating amphitheatre, out-patient service, dead-house, and autopsy-room are in detached buildings at one corner of the grounds, but of easy access by the system of corridors which makes the first floor of the entire hospital continuous. Proper attention has been paid in the plan to the isolation of all appurtenances likely to create nuisance. The central building and the scheme of administration seem admirably adapted for their purpose.

The third paper is by Dr. Joseph Jones, among whose printed titles is that of "Visiting Physician of Charity Hospital of New Orleans." Perhaps this relation of the writer to a hospital will account for the fact that his suggestions do not appear to be characterized by the consistency and definiteness which are desirable. Dr. Jones shows in his essay a comprehensive knowledge of the principles of hospital hygiene, but we believe that a few months' experience in the practical superintendence of a hospital would modify many of the views put forth in his present contribution. Permanent superimposed wards are advocated, the objections to such structures being met by the recommendation to keep at least one twelfth of the entire ward space at all times vacant. The pavilions should be erected on arches left entirely open, and used only as a general highway for the hospital; the floors should be of fire-proof materials, laid with glazed tiles or slabs and covered with oil-cloth; the walls should be impermeable, composed of either "Parian cement, colored tiles, or large porcelain or glazed earthenware slabs joined perfectly by a good cement," — an apartment sufficiently tomb-like and cheerful to inspire hope in the most disheartened invalid. The administration is complicated, clumsy, and impracticable; responsibility is divided and confused. Patients are to be mainly classified by sex; accordingly we have a "steam laundry for male clothing" and one for "female clothing," a "dead-house male" and a "dead-house female;" rather curiously this discrimination does not extend to the "dispensatory." We observe, moreover, that the plan provides a "male ward, fever," but the females have no place to which to take their fevers unless it be to the "obstetrical" ward, which is only one hundred and fifty feet from the surgical ward. One feature of the ground-plan consists of sixteen fountains, one for each of the ten wards and six near the line of the dead-house; these are to flush the sewers. The trustees will not fail to remark that the paper concludes with an elaborate disquisition on nutrition and the diet requisite to sustain it; with learned mention of albuminates and carbo-hydrates, of carboniferous and nitrogeneous aliments — matters which the trustees will probably leave for the rumination of the incoming superintendent. A similar *détour* is made concerning disinfectants.

Dr. Caspar Morris presents as the basis of his paper the plan of the Hospital of the Protestant Episcopal Church of Philadelphia. The essay is the longest in the book, and suffers by the needless repetition of descriptions. The writer believes cordially in permanent buildings with multiple wards. One of his arguments is that concentrated wards, with all their hypothetical disadvantages, are better than "the dark and illy ventilated rooms and houses to which the poor for whom these hospitals are provided are accustomed;" as if the matter of hospital construction turned upon such a comparison instead of on the question, which form of building saves most lives? The wards are long and narrow, and contain a water-closet at each end. The sewers are ventilated through the rain-water conductors, an unnecessary and objectionable arrangement. Five open fire-places are in each ward, and these are supplemented by steam apparatus. In still days during the warm season, when, as the author says, "scarcely an aspen leaf trembles in the breeze," forced ventilation by means of a fan is to be applied. The administration building is well planned; although we question the wisdom of placing the surgical amphitheatre, the lecture-room, the anatomical room, and the chapel in this building, in the very fore-front of the group.

The last essay in the series is by Dr. Stephen Smith, of New York, recently the president of the American Public Health Association. He brings to the elaboration of his theme a ripeness of experience and a breadth of research which make his paper exceedingly instructive to the sanitary student. If there is any drawback to the practical utility of his excellent paper it lies in the introduction of many topics not included in the requirements of the occasion; such, for example, are the discussion of Pettenkofer's ground-water and ground-air ideas, and of the germ theory of disease. But Dr. Smith embodies in his suggestions a great deal that is really original. He favors single-story pavilions. His ward-buildings are novel in shape; they have a body (containing only the twelve beds of the patients); a constricted portion or neck, whose length and width correspond with the width of the corridor on which it opens and of which it forms a section; and a head, containing all the rooms for the ward service. This practical isolation of the ward is ingenious and rational. The windows are not placed opposite each other, but alternately; and the beds are arranged accordingly. Windows are placed at each of the four corners of the ward, the angles being removed for that purpose. Dr. Smith's first choice would be to place the ward water-closets in the basement, his estimate being that at least one half of the patients are able to traverse stairs. Fire-places are recommended. The bath-room is excluded, its place being made good by portable baths for the ward and a general bath-house for the hospital. We are sorry to see the suggestion of a shoot for soiled linen other ways are preferable for removing such material. The administration buildings and their appurtenances, as well as the service of the hospital, are satisfactorily provided for.

In an appendix are plans for an octagon pavilion, suggested by Mr. Niernsée, the architect to the board of trustees. The shape of the ward is like the outline of a carafe or decanter, the expanded portion containing room for twenty-four or more beds, while the neck, opening on a connecting corridor, contains the entire ward administration. The details of this plan are very attractive and merit favorable consideration; they appear to be founded on hygienic principles.

We cannot close our extended notice of this remarkable book without renewedly expressing our appreciation of its excellent features. We must not fail to mention, as among these, the handsome manner in which the work is executed, the type and the numerous plates which embellish the pages being unusually fine.

MEDICAL NOTES.

— At the last meeting of the American Otological Society, held in Newport, R. I., July 21, 1875, it was voted that the committee on an international congress be empowered by this society to issue a call for an international otological congress at such time and place as they shall see fit. In accordance with this vote the committee have called a congress to be held in New York city on Friday, September 15, 1876, at ten o'clock A. M., the place of the meeting to be announced later. Members of the medical profession who take an active interest in aural surgery are cordially invited to be present and take part in the congress.

— Dr. E. R. Morgan reports to the *British Medical Journal* of October 16, 1875, some cases of poisoning by tobacco. Three patients were poisoned, of whom one died. The first patient, a middle-aged man, when seen by his physician was lying helpless in bed, unable to swallow, cold, with feeble pulse, and showing symptoms which aroused suspicion of poisoning by some vegetable substance, but no such poisonous substance could be discovered. The next day a child died after exhibiting somewhat similar phenomena; and soon after, a little girl was taken ill with the same symptoms as the other two. It was at length discovered by accident that the shallow well from which these patients had drunk contained tobacco which had got there in some unaccountable way. When the drug was removed it proved to be half of a quarter-pound packet of the strongest quality.

— A case of natural version is reported to the *Obstetrical Journal of Great Britain and Ireland* of October, 1875, by P. B. Giles, M. R. C. S. His patient was thirty-seven years old, and in her fifth pregnancy. Most of her previous labors had been abnormal, with flooding, still-born children, etc. During her present pregnancy the patient had convulsions. She was taken with pains August 24th, and was attended by a midwife. At three A. M., August 27th, the waters broke, a hand came down, and soon after a loop of cord. The patient was first seen by a physician at 8.27 A. M. of August 27th, when she was found to be suffering from anasarca and effusion into the peritoneal cavity. She was very feeble. Examination discovered a prolapsed, pulseless cord, the left arm lying in the vagina rather high up, the child apparently lying on its left side with the head above and to the right of the pubes. A foot was also detected high up, and a little behind the right sacro-iliac synchondrosis. After explaining to the relatives the critical condition of the patient, the physician, when about to operate, found that the arm was receding and that nature was thus endeavoring to complete the delivery. It was, however, evident that the patient's strength would erelong be exhausted, and after various attempts of the attendant to seize the right foot it was finally caught by a wire écraseur and complete version easily resulted. After much exertion a dead female child, weighing more than eleven pounds, was extracted. The patient died August 30th. The writer thinks that spontaneous version occurs more frequently than is recorded, but he is convinced that it would at least be unwise in shoulder presentations to wait for it to occur, still more so where the arm comes down.

LETTER FROM WASHINGTON.

Messrs. Editors, — The winter session has opened here for medical men; the societies are holding their weekly and bi-weekly meetings, and the colleges are fully at work, which also means, of course, that hospital material is being utilized to its fullest advantage, the cases that have held over through the summer months being now brought into requisition and made to serve for clinical display. Our colleges are fairly successful for this section, as regards both numbers and material, however insignificant the numbers might appear in comparison with those in attendance upon the colleges of our larger cities; for if fifty names appear upon the rolls of either college here, it is a full quota. Yet the material is in some respects of good quality; the men are mostly of a more mature age than those generally found upon the benches of a medical college; and having already learned to meet the stern requirements of life in this busy age, they know what it is to appreciate the value of a proper education and the uses to which it may be put; accordingly they are attentive, earnest, and in most instances in no haste to present themselves simply crammed for the final examination. The lectures are all given during the evening hours, say from five to ten, which is done to accommodate many who are in government service. This strikes one at first as a disadvantage, but there is something to be said in its favor: many students, finding themselves alone in a strange city, with their evening hours unoccupied, except when employed in dissection or the quiz, contract habits that are never profitable and are not always creditable. Again, the use of such aids in teaching as Holmes's class microscope and the sciopticon are much facilitated by the darkness of evening hours. The latter instrument has been used for the past three years as of valuable assistance in the lecture-room. Thus far this winter a serious check has been felt by the colleges through the difficulty of obtaining dissecting material; to speak mildly, the injudicious actions of one man, a doctor it appears, who made a business and traffic of securing such material, both for home and for foreign consumption, has roused the public sympathies and indignation to such a pitch as to embarrass the colleges to a serious extent; an unnecessary and injurious discussion of the subject has been held in the daily papers, involving the old story of popular prejudice on the one hand and a quiet determination to meet the necessities of the profession on the other. One decided disadvantage here to students holding government positions is their inability to attend the clinics regularly, and so long as this obtains, Washington must be satisfied with an inferior standing among medical centres. To meet this want Sunday has to be utilized, and accordingly on that day of rest the student passes a part of his time in hospital wards; it may be that we shall yet have an expression of public opinion in this respect, as some of the clergy have already from time to time expostulated against the custom. Hospitals are multiplying here and are really performing important services, though the one hospital that shall meet the demands of the public and the profession has yet to be built; but when the genuine students, they who devote their whole energy to the study of their profession, make their appearance in sufficient numbers to warrant the change, they will find clinical material to meet their wants, and at suitable hours.

It is interesting to one who knew Washington previous to and during the war to note the changes here in this respect. Up to the spring of 1861, to the memorable month of April of that year, when the attack was made on Massachusetts soldiery in the streets of Baltimore, the Washington Infirmary was the one hospital here, under the fostering care of the Sisters of Charity; it was a three-story building, with spacious grounds around it, and it answered well its purpose, the wards being nearly filled with chronic cases, with here and there a sprinkling of acute affections. It was taken possession of by the government, and was known as the Judiciary Square Hospital. It was burned to the ground in October, 1861. Increased accommodations being required for the sick and wounded, the war gave to us seventeen distinct hospitals under the control of the government, with a total capacity of thirteen thousand nine hundred and fifty-five patients. None of this, however, was used as clinical material, as we understand it; indeed, the colleges here were in a state of temporary demoralization. Nothing was easier than to obtain hospital-appointments as hospital-stewards, medical cadets, and acting assistant surgeons (contract surgeons), each bringing in its immediate pecuniary reward, so that with the excitement and bustle of action the more slow and sure but solid requirements of preliminary medical education were, in the main, overlooked or postponed to a more favorable opportunity.

After the close of the war there came in time to be developed as an outgrowth, as it were, of that condition, a desire to multiply hospitals, and every church society seemed to be possessed with the ambition of having a hospital of its own. Now that some ten years have passed, we have narrowed down the supply so that it more suitably meets the demand. The old infirmary has been replaced by Providence Hospital, a large and commodious building, with a visiting staff; clinical instruction is given regularly, and the wards are open without fee to both colleges alike. But it has one great drawback; it is under the charge of Sisters of Charity, whose rules are such as not to allow residence in the building to a medical man. How a religious order can undertake the care of male patients who spend their nights within the hospital walls, and refuse like accommodations to the medical attendant, is an enigma not yet explained, but the fact mars the usefulness of the institution very seriously. What must be the apprehensions of the surgeon in cases that threaten secondary hæmorrhage? How satisfactorily can a case of peritonitis be managed with the opium treatment under such circumstances? It is superfluous to attempt to multiply examples of this kind which must naturally present themselves to every one.

During the war a private dwelling-house in a favorable situation was used by the government, more particularly for venereal diseases, and was termed the Ricord Hospital; when no longer required for this purpose it was converted into the Columbia Hospital for Women and Lying-in Asylum; it received its act of incorporation from Congress in 1866, and an annual appropriation of ten thousand dollars. The hospital was in time moved to its present site, which was purchased by the government, and the yearly appropriation devoted to its use was largely increased. It is in point of fact a government institution, and has a surgeon-in-charge and a resident physician, both salaried officers. Attempts have been made from time to time to attract the attention of the profession to its sphere of usefulness, but they have failed because the institution is conducted so exclusively in the personal interest of the surgeon-in-charge. It has long been the opinion of medical men here that it would be more advantageous had this hospital a regular visiting staff without salaries. At one time there was quite a list of names of prominent physicians as the consulting staff, but, for reasons best known to themselves, they retired from the position. A college of gynæcology figures in the history of the hospital; lectures were given, but one short semester told the tale. Lectures have been also given to women preparing to be nurses; to these exercises ladies having families, present or in prospect, were invited. Clinical lectures are given weekly, which the students of both colleges attend; a fee was formerly charged for these, but they are now free. By far the largest dispensary in this city was connected with the hospital, but has been discontinued, "there being no provision in the charter to extend aid to any but those suffering from diseases peculiar to women." Consequently the clinical material is now restricted to this department and to general surgery, although why the latter is included does not appear. One period in the history of the institution was marked by a notable circumstance — the publication in 1873 of a large quarto volume, illustrated, and containing four hundred and thirty pages; the work is probably familiar to your readers, as it received marked attention from the medical press. It was published by the government, and in many of the copies was a prospectus of the college of gynæcology before mentioned. We understand that a second report is about to be published.

The Freedmen's Hospital, located just within the city limits, is a large building which grew out of the necessities of the Freedmen's Bureau, and partakes in part of the character of an asylum for the old and indigent of the colored race. Here, too, valuable clinical instruction has been given from time to time.

The Children's Hospital is a young and growing institution which was established in 1870; it has already, from the exertions of those interested in its behalf, come to be recognized by the community as a necessity in the absence of a general hospital with children's wards. It has as yet no building of its own, and is devoted to a special purpose; there is every prospect of the speedy erection of more suitable accommodations. It has a large general dispensary service, for which there seems to be no provision in the printed charter. Both colleges share in the benefits of its clinical instruction.

Other hospitals might be mentioned in this connection, such as the government hospital for the insane, and the model hospital erected on the grounds of the Old Soldiers' Home, but these do not come under the notice of medical students and are not used for clinical instruction. The neighboring city of Georgetown (though now one with Washington, the old line of demarkation is still maintained) has attempted a hospital of her own, with what success remains to be seen, as it is yet in its infancy.

Notwithstanding the foregoing details, the statement is repeated that no one of these hospitals answers the demands of the public and the profession. One good general hospital would do away with the necessity for the greater part of the others, and the energy which is spent in maintaining these separate charities would effect a better purpose if concentrated for a single object. This will not be attempted at present, as the Board of Health is an obstacle in the way; government aid would be solicited for the movement, and necessarily the board would be invested with authority in the matter, at least so think the profession, and this would be in the highest degree objectionable. The physicians who attend the out-door poor of the District have already presented a petition containing an admirable scheme for the proposed change, showing that Providence Hospital is strictly for non-residents, and setting forth the unhealthy location of the Almshouse hospital, if it can be dignified by such a title, which is confounded with a workhouse on the one side, a small-pox hospital on the other, and a potter's field behind, associations favorable perhaps to thoughts on the mutability of human affairs, but to little else. The petition, however, has been tabled. HOMO.

WASHINGTON, D. C., *November* 12, 1875.

WEEKLY BULLETIN OF PREVALENT DISEASES.

THE following is a bulletin of the diseases prevalent in Massachusetts during the week ending November 27, 1875, compiled under the authority of the State Board of Health from the returns of physicians representing all sections of the State: —

The summary for each section is as follows: —

Berkshire: Pneumonia, bronchitis, influenza. Diphtheria reported in the northern parts.

Valley: Bronchitis, rheumatism, influenza, typhoid fever, pneumonia. Holyoke and Springfield report diphtheria;. Amherst, meningitis; South Hadley Falls, a continued epidemic of measles.

Midland: Bronchitis, influenza, rheumatism, typhoid fever. Worcester reports scarlatina; Fitchburg, diphtheria.

Northeastern: Bronchitis, influenza, typhoid fever. Very little sickness reported. A Lowell physician of experience reports that the mortality last week was the smallest within his knowledge, for a single week, in that city.

Metropolitan: Bronchitis, scarlatina, diphtheria, pneumonia, rheumatism. Less diphtheria and more scarlatina reported. Some varicella and tonsillitis.

Southeastern: Influenza, bronchitis, typhoid fever. Not much sickness.

In the State at large, the order of relative prevalence is as follows: bronchitis, influenza, typhoid fever, rheumatism, pneumonia, diphtheria, scarlatina.

F. W. DRAPER, M. D., Registrar.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING NOV. 20, 1875.

	Estimated Population.	Total Mortality for the Week.	Annual Death-Rate per 1000 during Week.
New York	1,060,000	451	22
Philadelphia	800,000	297	19
Brooklyn	500,000	240	25
Chicago	400,000	126	16
Boston	342,000	178	27
Cincinnati	260,000	118	23
Providence	100,700	45	23
Worcester	50,000	11	12
Lowell	50,000	4	4
Cambridge	48,000	20	21
Fall River	45,000	21	24
Lawrence	35,000	10	15
Lynn	33,000	10	16
Springfield	31,000	8	13
Salem	26,000	8	16

Normal Death-Rate, 17 per 1000.

Books and Pamphlets Received. — A Text-Book of Human Physiology. By Austin Flint, Jr., M. D. New York: D. Appleton & Co. 1876.

Transactions of the American Medical Association. Vol. XXVI. Philadelphia. Printed for the Association. 1875.

Hospital Plans. Five Essays on Hospitals, for the Use of the Johns Hopkins Hospital of Baltimore. New York: William Wood & Co. 1875. (For sale by A. Williams & Co.)

Transactions of the Pathological Society of London. Vol. XXVII. 1875.

History of American Medical Literature from 1776. By S. D. Gross, M. D., LL. D. Philadelphia. 1876.

Transactions of the Kansas Medical Society at its Annual Session, 1875.

Twenty-Fourth Annual Report of the Boston Provident Association. October, 1875.

Candy. Its Effects on the Teeth and System. By John T. Codman, D. M D.

Cyclopædia of the Practice of Medicine. Edited by Dr. H. von Ziemssen. Vol. V. Diseases of the Respiratory Organs. American Edition. New York: William Wood & Co. 1875. (Subscriptions received by H. D. Brown & Co., agents for Boston and vicinity.)

Hints on the Obstetric Procedure. By W. B. Atkinson, M. D. Philadelphia: Collins, Printer. 1875.

Proceedings of the Conference of Charities held in Connection with the General Meeting of the American Social Science Association. Detroit. 1875.

State Medicine in its Relations to Insanity. By Dr. Nathan Allen. 1875. (For sale by A. Williams & Co.)

The regular meeting of the Boston Society for Medical Observation will be held on Monday evening, December 6th. Dr. C. J. Blake will read a paper on the Treatment of Perforations of the Membrana Tympani.